

Claims

What is claimed is:

1. A pressure-control device, comprising:
a controllable variable-displacement hydraulic motor having a pressure port and
5 a return port;
a source of pressurized fluid;
a fluid return; and
a pressure regulating valve operatively interposed between said source, return and
pressure port, said valve being operatively arranged to maintain a predetermined pressure
10 at said pressure port regardless of the direction of flow through said pressure port.
2. The pressure-control device as set forth in claim 1 wherein said motor includes
a variable-angle swashplate.
3. The pressure-control device as set forth in claim 1 wherein said valve is a three-
way valve.
- 15 4. The pressure-control device as set forth in claim 3 wherein said valve has a valve
spool.
5. The pressure-control device as set forth in claim 4 wherein said valve has a first
spool end chamber communicating with said pressure port.
6. The pressure-control device as set forth in claim 5 wherein said valve has a second
20 spool end chamber, and means associated with said second spool end chamber for biasing
said valve spool to move in a direction to increase the pressure at said pressure port.
7. The pressure-control device as set forth in claim 6 wherein said biasing means
includes a spring in said second spool end chamber.

8. The pressure-control device as set forth in claim 6 wherein said biasing means is the pressure of fluid in said second spool end chamber.

9. The pressure-control device as set forth in claim 8 and further comprising a 3-way pilot valve operatively arranged between said source, return and second spool end
5 chamber.

10. The pressure-control device as set forth in claim 8 wherein the pressure in said second spool end chamber is said predetermined pressure.

11. The pressure-control device as set forth in claim 9 wherein the pressure at said second spool end chamber is selectively one of said source and return pressures.

10 12. The pressure-control device as set forth in claim 9 wherein said valve has a piston means associated with said first spool end chamber for biasing said valve spool to move in a direction to decrease the pressure at said pressure port, said piston means being loaded by said source pressure.

13. The pressure-control device as set forth in claim 1 wherein when the fluid flow
15 is out of said pressure port, such flow is directed to said motor return port.